December 12, 2001

Report on Site Visit: Town of Acton Wastewater Treatment Plant
Adams Street
Contact during Visit: W.E. Porter and David W. Dedian of Woodard & Curran
Date of Visit: December 6, 2001
Sanitarian: Sharon Walker Mastenbrook

Description of Hazardous Materials Use

The Town of Acton Wastewater Treatment Plant services 700 parcels in the town. The plant has a design flow of 250,000 gpd. Although not presently operating, the plant will use biological and chemical methods for treatment of sewage with discharge of the treated wastewater into rapid infiltration basins. Sludge will be periodically removed and taken to a wastewater treatment plant. The treatment process includes odor and noise control. The building has a security system. All plumbing and floor drains in the plant empty into the plant itself (influent tank). The laboratory sink includes an acid neutralization tank before waste enters the influent tank. The headworks room is explosion proof and has dangerous gas detectors. The chemical storage rooms have secondary containment. The plant is computer controlled with alarms and warning notices automatically connected to on-call personnel or the Fire Department. The building is sprinklered for fire protection. Two full-time workers will staff the plant. The plant is expected to be staffed eight to ten hours per day, five days per week.

The plant consists of the following components:

1. main influent line with sewage entering the plant
2. 2 wet wells for holding entering waste
3. headworks for mechanical screening of waste
4. 2 500,000 gal sequencing batch reactors (SBRs) for chemical and biological treatment
5. 2 filtration units
6. ultraviolet disinfection
7. wet well for storage of treated wastewater
8. rapid infiltration basins (RIBS)

Site Visit Observations

The plant consists of one main building with multiple rooms and the RIBS.
On the first floor are the following:

1. sludge handling and polymer feed room (approximately 9,000 gal/month of sludge anticipated to be removed)
2. electrical room
3. laboratory for testing suspended solids, biological oxygen demand, nitrates, phosphorus, pH and dissolved oxygen
4. storage room for non-chemical supplies

5. headworks
6. bathrooms
7. office
8. conference room
9. generator room

On the lower level are the following:

1. main area/pump room (with soda ash storage for pH control)
2. metal salt (alum) room with 2 1,500 gal tanks of alum (for phosphorous removal)
3. 2 (84%) acetic acid rooms (one 300 gal tote in each room) (acid is food source for the biomass)
4. 12% sodium hypo chlorite room (for secondary disinfection) with chemical stored in 55 gal drums
5. blower room (with acid neutralization tank)
6. boiler room
7. oil tank room
8. filter/uv room

There will be personal protection equipment for personnel at the site: at present unspecified. Five rooms have plumbed eyewash stations.

There is a laboratory room in the main building where personnel will test the wastewater. The laboratory includes a hood with a ventilation system. There will be a small amount of hazardous waste generated in the laboratory.

A diesel-powered generator is available if there is a power failure. The generator is run with diesel fuel stored in an indoor above ground 1,000 gal storage tank. An independent contractor services the generator.

There will be a small amount of waste oil generated on site from pumps and blowers.

Comments

The application has not been received.

There are several issues which need attention:

- Provide the appropriate number of spill kits for the facility (for wet and dry spills)
- Post emergency plans
- Remove chemicals from storage room
- Post emergency plan in lab room
- Provide MSDSs for all chemicals on site

Recommendations

I recommend the Town of Acton Wastewater Treatment Plant receive a Hazardous Material Permit (#4 hazardous materials user and #8 hazardous materials storer industry large).

I recommend the following conditions be included in the permit:

1. All Hazardous Materials and Wastes shall be stored in a containment area capable of storing 110% of the largest unit volume stored in the containment area.

2. All Material Safety Data Sheets (MSDS) for the Hazardous Materials shall be stored on site, and shall be made available to all employees upon request and reviewed with all employees on a regular basis.

3. A Contingency Plan, including emergency contact numbers (Telephone Number of the owner, operator, etc.) and a sketch showing clearly all Hazardous Material and Waste locations, shall be submitted and updated annually, to the Board of Health, Fire Department, Police Department, and Civil Defense.

4. Emergency procedures and local Emergency Response Telephone Numbers (Health, Fire, Police, D.E.P., Civil Defense, etc.), should a spill occur, shall be posted in clear view of all employees wherever Hazardous Materials or Wastes are used or stored.

5. All Hazardous Wastes must be disposed of by a Licensed, D.E.P. approved, hauler or be recycled on site.

6. Copies of either all invoices or manifests, for any Hazardous Materials or Wastes, received or disposed, shall be submitted to the Board of Health annually.

7. All Hazardous Materials Containers shall be labeled and dated when filling first began.

8. Speedy Dry, or its equivalent, shall be kept in the storage area, in case of a Hazardous Materials or Wastes spill.

9. Floor cleaning procedures and bathroom sanitation products shall us only nontoxic and biodegradable cleaning compounds.

10. All floor drains shall be sealed or discharged into a closed system, with the waste disposed of by a D.E.P. approved Hazardous Waste Hauler.

11. Protective Equipment, including Chemical resistant gloves, eye goggles and (rubber) boots, in addition to soap and water, shall be made available to all employees, at all times, in any Hazardous Materials or Waste storage or use area.

13. A safety eye wash station shall be installed where any Hazardous Materials or Wastes are handled or used.

15. No food or drink shall be stored or consumed in any area where Hazardous Materials are stored or used.

18. D.E.P. Generator Registration shall be provided annually upon renewal of the Hazardous Materials Storage Permit.

25. Prior to any new chemical or processes being used, the Board of Health shall be notified.

26. The operation of this facility shall be in compliance with all present and future regulations of E.P.A. and D.E.P. at all times. Nothing in this permit allows or requires non-compliance with all present and future applicable laws or regulations of the Federal or State Governments.